

Work Order ID 80912

March-05-12 10:38:35 AM

80912

Page 1

Item ID: D105-674-011G

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Item Name: Skidtube, Grey

Stop ***NS2***

Start Date: 05/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 19/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 12/03/05 Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2966	Rev A2								

100

0.00

100

DOCUMENT CONTROL

DC

Memo

0.00

Document Control

Photocopy bluefile & type labels per PPP D105-674-011G CHG002

JB

MLJ 12-5-23

130

0.00

130

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

** Pull D2966-1 bent **

- 1-Cut Aft end at 107.06" using DT8185D
- 2-Deburr ends
- 3-Drill Aft Cap holes using DT8678
- 4-Locate DT8679 with 1/8 clecos in Aft Cap holes. Ensure DT8679 is centered on Fwd end of tube and drill #40 Fwd bushing.
- 5-Clamp DT8679 to the tube. Drill all #30 wearplate and crossbolt holes.
- 6-Open Aft Cap holes using #6 drill
- 7-Open wearplate holes and two side holes to Ø19/64" (0.297") as per Dwg D2966-1.
- 8-Deburr holes.
- 9-Open remaining (16) crossbolt holes to Ø0.500

7/6/12-4-12
CF
DP12-5-3
BE 12-05-09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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1

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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start ***NR1***

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

140

0.00

140

Skidtubes

Skidtubes

Memo

0.00

Skidtubes

1-Weld Fwd Cap as per Dwg D2966 and QSI 004. Fill #40 Fwd cleco hole.
2-Grind Fwd Cap welds flush

*3 AIR m120164
m120854
1 0 BE 12/05/09*

150

QC10- Inspect visual per QSI004- ground welds

0.00

150

QC

Memo

0.00

Quality Control

8.12/05/09

160

QC5- Inspect part completeness to step on W/O

0.00

160

QC

Memo

0.00

Quality Control

8.12/05/09

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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Required Date: 19/03/2012 Req'd Qty: 1.00

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Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start ***NR1***

QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	Chemical Conversion Coat per QSI005 4.1	0.00							
170									
HandFinish	Memo	0.00							
Hand Finishing									
180	QC 7 - Inspect Part Finish	0.00							
180									
QC	Memo	0.00							
Quality Control									
190	Skidtubes	0.00							
190									
Skidtubes	Memo	0.00							
Skidtubes	1-Open crossbolt holes to finish size as per Dwg D2966 2-Open 14 holes to Ø0.750" & 2 holes to Ø0.875", countersink crossbolt holes & remove alodine to prepare for welding as per Dwg D2966 3-Deburr holes inside & outside, blow out chips								

Dart Aerospace Ltd

W/O: 80912		WORK ORDER CHANGES						
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector	
12-05-10	180	change Qc3 to Qc7 Done <i>HJ</i>	<i>SAD</i> 12-05-10					

Part No: D105-674-011 G PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Item ID: D105-674-011G Accept ***N900040100*** Setup Start ***NS1***
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 Item Name: Skidtube, Grey
 Start Date: 05/03/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 19/03/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	Skidtubes	0.00							
200									
Skidtubes	Memo	0.00							
Skidtubes	1-Bond Web in place per QSI 015. (Ensure holes line up) Pick: A/R Sikaflex-291 batch: <u>MB2221</u> Sikaflex expiry date: <u>2013-01-09</u> start time: <u>2h 00</u> end time: <u>12-05-14 12:30</u>								
	2-Weld Crossbolt Spacers as per Dwg D2966 and QSI 004. For crossbolt spacer, weld one side, pass 5/8" drill; weld other side, pass 5/8" drill. Pick: A/R Aluminum Rod batch: <u>M120164</u> <u>BE 12/05/14</u>								
	3-Pass Ø0.630" drill to remove spillover for D2973 crossbolt. Pass Ø0.750" drill to remove spillover for D2971 crossbolt. <u>BE 12/05/14</u>								
	4-Grind welds flush as per Dwg D2966 <u>SM/CC 12-5-14</u>								
210	QC10- Inspect visual per QSI004- ground welds	0.00							
210									
QC	Memo	0.00							
Quality Control									

SAD 12-05-10

81260/15

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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1

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Required Date: 19/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

220

QC5- Inspect part completeness to step on W/O

0.00

220

QC

Memo

0.00

Quality Control

225

Chemical Conversion Coat per QSI005 4.1

0.00

225

HandFinish

Memo

0.00

Hand Finishing

230

Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3

0.00

230

Powdercoat

Memo

0.00

Powder Coating

START TIME:

OVEN TEMPERATURE:

FINISH TIME:

11:00
320 °F
11:30

M117338

1 X 8 12/05/15
mm-L 12/05/16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Setup Start

NS1

Revision ID:

Stop

NS2

Item Name: Skidtube, Grey

Start Date: 05/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 19/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start

NR1

QC:

Date:

SPC (Y/N):

Date:

Stop

NR2

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
240	QC3- Inspect Part Finish	0.00				1	0		BR 12-5-16
240									
QC	Memo	0.00							
Quality Control									
250	HandFinishing	0.00				1	0		SP 12/05/17
250									
HandFinish	Memo	0.00							
Hand Finishing	1-Inspect for foreign objects as per QSI 024								
	2-Install Inserts, Wearplate and Cap per Dwg D2966. Insert a drop of sikaflex at insert holes before installing wearplates. Seal Aft Cap using Sikaflex. Install bushing and nut. By looking Fwd, install nut to right hand side.								
	Pick:								
	QtyPart NumberDescriptionBatch								
	A/RSikaflex-291 121531								
	Sikaflex expiry date: 12/07								
	3-Wing Walk as per Dwg D2966 and QSI 005 4.4								
	Batch: 21505								

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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 Revision ID: Stop ***NS2***
 Item Name: Skidtube, Grey
 Start Date: 05/03/2012 Start Qty: 1.00 ***1*** Cust Item ID:
 Required Date: 19/03/2012 Req'd Qty: 1.00 ***1*** Customer:
 Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

260 QC3- Inspect Part Finish 0.00

260

QC

Memo

0.00

Quality Control

270 QC5- Inspect part completeness to step on W/O 0.00

270

QC

Memo

0.00

Quality Control

*****ENSURE INSERT ARE AT LOCATION (6) AS PER DWG
D2966*****

280 Pick Kit 0.00

280

Packaging

Memo

0.00

Packaging

12/05/23 JB

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Start Date: 05/03/2012 Start Qty: 1.00

1

Cust Item ID:

Required Date: 19/03/2012 Req'd Qty: 1.00

1

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
290	QC4- 100% Inspect kits for completeness	0.00							
290									
QC	Memo	0.00							
Quality Control									
300		0.00							
300	Packaging								
Packaging	Memo	0.00							
Packaging	Identify and pack for shipping as per PPP D105-674-011G Location: _____								
310	QC21- Final Inspection - Work Order Release	0.00							
310									
QC	Memo	0.00							
Quality Control									

80912

12/5/23

12/5/29

MF 12-05-28

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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Picklist Print

March-05-12 10:38:39 AM

Page 1

Work Order ID: 80912

80912

Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube, Grey

Start Date: 05/03/2012

Required Date: 19/03/2012

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP Rev:A04.07.07New IssueKJ/JLM
seq110 DD verf:EC

IPP Rev:B 10.06.09 remove

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2966-1-BENT

Manufactured

No

130

Each

2.0000

1

1

D2966-1-BFNT

Skidtube Assembly 105

**

Location

Loc Qty

Loc Code

LG

2

77274

1

77327

1

77444

1

D2964

Manufactured

No

140

Each

29.0000

1

1

D2964

Cap

**

Location

Loc Qty

Loc Code

LG002

29

74719

29

D2976

Manufactured

No

200

Each

0.0000

1

1

D2976

BO 105 Skidtube I Beam

D2971

Manufactured

No

200

Each

34.0000

1

1

D2971

Cross Bolt Spacer

**

Location

Loc Qty

Loc Code

LG001

34

74720

34

1 7/6/12-4-12

BE 12/05/09

SAN 12-05-11

BE 12/05/11

1

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

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Parent Item: D105-674-011G

D105-674-011G

Parent Item Name: Skidtube, Grey

Start Date: 05/03/2012

Required Date: 19/03/2012

Start Qty: 1.00

Required Qty: 1.00

D2973 Manufactured No

200 Each

58.0000

7 7

D2973

Cross Bolt Spacer

**

*BE 12/05/14*LocationLoc QtyLoc Code

LG002

58

14636

58

D2965 Manufactured No

250 Each

22.0000

1 1

D2965

Cap, 105 Skidtube

**

*(2P) 12/05/17*LocationLoc QtyLoc Code

FP002

22

71371

22

D2970-1 Manufactured No

250 Each

7.0000

1 1

D2970-1

Wearplate

**

*(2P) 12/05/16*LocationLoc QtyLoc Code

FP001

7

48213 ✓

7

D2970-3 Manufactured No

250 Each

5.0000

1 1

D2970-3

Wearplate

**

*(2P) 12/05/16*LocationLoc QtyLoc Code

FP001

5

48214 ✓

5

D3176-1 Manufactured No

250 Each

10.0000

1 1

D3176-1

Bushing

**

*(2P) 12/05/16*LocationLoc QtyLoc Code

ST032

10

37586 ✓

10

March-05-12 10:38:39 AM

Shop Packet Print

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Dart Aerospace Ltd

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Parent Item Name: Skidtube, Grey

Start Date: 05/03/2012

Required Date: 19/03/2012

Start Qty: 1.00

Required Qty: 1.00

D3176-3 Manufactured No

250 Each 13.0000 1 1

D3176-3

Nut

**

1 (2P) 12/05/16

Location

Loc Qty

Loc Code

ST032

13

44896 ✓

13

ALS7-1032-130

Purchased No

250 Each 2,400.000 36 36

AI S7-1032-130

Insert

**

36 (2P) 12/05/16

Location

Loc Qty

Loc Code

ST280

327

117717

27

118966

22

119775

278

ST282

121269 ✓

2073

119530

73

120181

2000

MS27039-1-08

Purchased No

250 Each 1,255.000 26 26

MS27039-1-08

Screw

**

26 (2P) 12/05/16

Location

Loc Qty

Loc Code

ST291

121011

1255

117423

81

119075

168

119109

6

120308

1000

AN960JD10L

✱ NAS1149D0332J ✓ Purchased

No

250 Each 0.0000 28 28

***AN960JD10L ***

Washer

**

28 (2P) 12/05/16

~~121011~~
121011 ✓

March-05-12 10:38:39 AM

Shop Packet Print

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Parent Item Name: Skidtube, Grey

Start Date: 05/03/2012

Required Date: 19/03/2012

Start Qty: 1.00

Required Qty: 1.00

MS27039-1-09

Purchased

No

250

Each

355.0000

2

2

MS27039-1-09

Screw

**

2

SP

12/05/16

Location

Loc Qty

Loc Code

FP002

101

18057 ✓

101

ST291

254

111650

254

D2972

Manufactured

No

290

Each

51.0000

6

6

D2972

Bushing

**

JB

Li

Location

Loc Qty

Loc Code

ST022

51

33544

20

44160

31

44160

D2974

Manufactured

No

290

Each

41.0000

1

1

D2974

Packer

**

JB

Li

Location

Loc Qty

Loc Code

ST022

41

71997

41

71997

D2975

Manufactured

No

290

Each

6.0000

2

2

D2975

Wearshoe

**

80093

JB

12/05/23

Location

Loc Qty

Loc Code

ST497A

6

74721

6

W/O:		WORK ORDER CHANGES					
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Parent Item: D105-674-011G

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Parent Item Name: Skidtube, Grey

Start Date: 05/03/2012

Required Date: 19/03/2012

Start Qty: 1.00

Required Qty: 1.00

AN4-51A Purchased No

290 Each 188.0000 3 3

AN4-51A

Bolt

**

120986 JB

Location

Loc Qty

Loc Code

ST361

188

119798

30

120187

158

AN960JD10L NAS1149D0332J Purchased No

290 Each 0.0000 8 8

AN960JD10L

Washer

**

121011 JB

MS21042L4 Purchased No

290 Each 4,370.000 3 3

MS21042L4

Nut

**

121011 JB

Location

Loc Qty

Loc Code

ST300

4370

117441

51

117601

157

118451

133

119017

200

119075

3829

MS27039-1-08 Purchased No

290 Each 1,255.000 8 8

MS27039-1-08

Screw

**

JB 12/05/23

Location

Loc Qty

Loc Code

ST291

1255

117423

81

119075

168

119109

6

120308

1000

120308

March-05-12 10:38:39 AM

Shop Packet Print

Page 5

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



DESIGN RF	DRAWN BY RF	DART AEROSPACE USA, INC. BELLEVUE, WA	
CHECKED [Signature]	APPROVED [Signature]	DRAWING NO. D2966	REV. A SHEET 1 OF 2
DATE 00.03.08		TITLE BO 105 SKIDTUBE ASSEMBLY	SCALE NTS
A	00.03.08	NEW ISSUE	

RELEASED
00.05.11 [Signature]

Qty	Part Number	Description
X	D2966-041	SKIDTUBE ASSEMBLY
1	D2962-125	EXTRUSION
1	D2964	CAP
1	D2965	CAP
1	D2970-1	WEARPLATE
1	D2970-3	WEARPLATE
1	D2971	CROSS BOLT SPACER
7	D2973	CROSS BOLT SPACER
1	D2976	WEB
36	ALS7-1032-130 or ALS4-1032-130 or AKS7-1032-130 or AKS4-1032-130	INSERT
28	AN960JD10L	WASHER
26	MS27039-1-08	SCREW
2	MS27039-1-09	SCREW
1	D3176-1	BUSHING
1	D3176-3	NUT

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 80912 MLCJ
12/03/05



GENERAL NOTES:

- 1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 2) WELDING TO BE DONE PER DART QSI 004.
- 3) INSERT D2976 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241/-291 ADHESIVE PER DART QSI 015 AFTER BENDING.
- 4) USE DART DRILL TEMPLATE DT8451 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION B-B (34 PLACES) AFTER FINISH. SEAL WEARPLATE SCREWS WITH SIKAFLEX-241/-291.
- 5) DO NOT INSTALL MS27039-1-08 SCREWS AND AN960JD10L WASHERS IN THESE LOCATIONS.
- 6) INSTALL ALS7-1032-130 INSERT, MS27039-1-08 SCREW, AND AN960JD10L WASHER IN 2 PLACES THIS LOCATION BEFORE POWDER COATING.
- 7) FINISH:

ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2976 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF 4.3.5.4) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED TO 1.00 ABOVE CENTER LINE PER DART
QSI 005 4.4 (OPTIONAL) BLACK SANDTEX (REF 4.3.5.7)



01.01.29
01.01.30

A2	02.10.30	ADD D3176-1/-3	[Signature]
A1	01.01.29	CHANGE COLOR TO BLACK SANDTEX	[Signature]

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Dart Aerospace Ltd

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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DETAIL A
SCALE 1:3

BLACK ANTI-SKID

D2964 CAP

1/16

C

INTERNAL SURFACE (1)
D2964-3 (1)

APPROX. FLASH

Az

Technical drawing of a bent pipe section. The drawing shows a pipe with a bend. The dimensions are as follows:

- Radius of bend: $R32.0 \pm 1.0$
- Angle of bend: 6°
- Distance from the start of the bend to the end of the section: 87.19 (REF)
- Distance from the start of the bend to the end of the section: 107.06
- Material specification: USE D2962-125 EXTRUSION

D2966-1 DRILLING DETAIL

SECTION B-B
SCALE 1:6

D2976 WEB (REF)

D2973 SPACER

4

ALS7-1032-130 INSERT (34 PLACES)

MS27039-1-08 SCREW (1)
AN960JD10L WASHER (1)
(26 PLACES)

2

AFTER BENDING AND
PERFORM THE FOLLOWING:
1. CHAMFER HOLE
2. INSERT D2973
3. WELD INTO PLACE
4. PASS $\phi 0.630$ D

AFTER BENDING AND DRILLING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.750 HOLES ONLY:

1. CHAMFER HOLE 0.030 x 45°
2. INSERT D2973 SPACER (7 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. PASS Ø0.630 DRILL TO REMOVE SPILL OVER

SECTION C-C
SCALE 1:6

D2964 CAP (REF)

D2971 SPACER

2

PERFORM THE FOLLOWING FOR ~~Ø-625~~ HOLES ONLY:

5. CHAMFER HOLE 0.030 x 45°
6. INSERT D2971 SPACER
7. WELD INTO PLACE AND GRIND FLUSH
8. PASS ~~Ø-48~~ DRILL TO REMOVE SPILL OVER

D2966-041 ASSEMBLY DETAIL

D2966-041 ASSEMBLY DETAIL

REFER TO DETAIL A

9.0

15.3

51.7

16.5

BLACK ANTI-SKID

D2976 WEB

REFER TO DETAIL D

A-A

B-B

D2970-1

D2970-3

3

7

6

5

5

DETAIL D
SCALE 1:4

0.40

SEAL WITH SIKAFLEX-241/-291 ADHESIVE

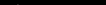
D2965 CAP

Ø0.208
DRILL PRIOR TO D2965 CAP
INSTALLATION (2 PLACES)

D2976 WEB (REF)

1.50

MS27039-1-09 NUT (1)
AN960JD10L WASHER (1)
(2 PLACES)

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DATE 00.03.08		TITLE BO 105 SKIDTUBE ASSEMBLY			SCALE 1:20

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

NO. 259

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: B68574
Part number: D105-674-0110
Description: ICS
Welding Process: Tig[☒] Mig[]
Base material: Aluminum
Current: AC[☒] DC[]

TEST REQUIREMENTS AND RESULTS

Visual: pass[☒] fail[]
Penetration: pass[☒] fail[]

UNACCEPTABLE

Cracks: pass[☒] fail[]
Undercut: pass[☒] fail[]
Pin holes: pass[☒] fail[]
Overlap (cold lap): pass[☒] fail[]
Porosity (surface): pass[☒] fail[]
Coloration: pass[☒] fail[]

Qualifier Sal Dunn Date of Test Coupon 11-06-30

Welder Barclay Elliott Date of Test Coupon 11-06-30

The above named individual is qualified in accordance with AWS D17.1.2001 to weld